

IN THE CLAIMS:

Please amend claims 1-18 as follows.

1. (Currently Amended) A mobile communication system comprising at least one mobile communication network (~~PLMN~~); at least one service ~~centre~~ center (~~PTM-SC~~) for point-to-multipoint services; and at least one network node (~~SGSN~~) through which a point-to-multipoint service is transmitted to cells belonging to a destination area, the geographical destination area of the point-to-multipoint service being indicated in the system as a logical name,

31 ~~characterized in that~~ wherein

the system comprises memory means (~~AR~~) for mapping each predetermined logical name to one or more network element addresses (~~PTM-SC, SGSN~~) of the system, and that

a service ~~centre~~ center (~~PTM-SC~~) is arranged to inquire, in response to a received service request, from the memory means (~~AR~~) the addresses of the network elements (~~PTM-SC, SGSN~~) corresponding to the logical name of the destination area and to transmit the point-to-multipoint service via the network elements to the geographical destination area.

2. (Currently Amended) The A mobile communication system according to claim 1, ~~characterized in that~~

the service ~~centre~~ center (PTM-SC) is also arranged to check whether the network element address is the address of a second service ~~centre~~ center and, if yes, to transmit the service request to the second service ~~centre~~ center.

3. (Currently Amended) The A mobile communication system according to claim 2, ~~characterized in that~~ wherein

B) the memory means (AR) are arranged to link to the address of the second service ~~centre~~ center associated with the logical name a second logical name corresponding to the logical name in the service area of the second service ~~centre~~ center, and

the service ~~centre~~ center (PTM-SC1) is arranged to replace the logical name given in the service request with said second logical name before the service request is transmitted to the second service ~~centre~~ center (PTM-SC2).

4. (Currently Amended) The A mobile communication system according to claim 1, ~~characterized in that~~ wherein

the logical name of the destination area can be determined by means of at least two logical names and their intermediate logical operator, the logical operator indicating how the areas of the logical names relate to each other, and

the memory means (AR) are arranged to map the logical name of the destination area that is formed by the two or more logical names and the intermediate logical operator between successive names to one or more network element addresses of the system.

5. (Currently Amended) A method for transmitting a point-to-multipoint service of a mobile communication system to a destination area of the service indicated as a logical name in a service request, the mobile communication system comprising at least one mobile communication network, at least one service ~~centre~~ center for point-to-multipoint services, and at least one network node through which the point-to-multipoint service is transmitted to the cells located within the destination area,

B | ~~characterized~~ by the method comprising the steps of:
determining logical names for geographical destination areas of the service;
maintaining an address list for each logical name in the mobile communication network, the address list being used for mapping a logical name to one or more network element addresses of the system;

receiving a service request (5-1) at a first service ~~centre~~ center, the service request indicating the destination area as a logical name;

mapping the logical name by means of the address list to one or more network element addresses (5-2 and 5-3), and

transmitting the service via the network elements to the geographical destination area.

6. (Currently Amended) The A method according to claim 5,
~~characterized~~ by the method comprising the steps of:
checking the address of each network element;

if the address is an address of a second service ~~centre~~ center, forwarding the service request to it (5-4); and

if the address is a network node address, transmitting the service via the node to those cells in the service area of the node that belong to the destination area (5-6, 5-8) of the service.

7. (Currently Amended) The A method according to claim 5, ~~characterized by~~ the method comprising the steps of:

BI determining at least one logical operator for indicating the destination area by using at least two different logical names and their intermediate logical operator, ~~and~~ ;

mapping each logical name to one or more network element addresses; and

combining the network element addresses as determined by the logical operator.

8. (Currently Amended) A method for transmitting a point-to-multipoint service of a mobile communication system to a destination area of the service, at least part of the destination area being outside the service area (A1-1) of a first service ~~centre~~ center (PTM-SC1), the first service ~~centre~~ center receiving a service request from a service provider,

~~characterized by~~ the method comprising the steps of:

setting up a connection from the first service ~~centre~~ center to a second service ~~centre~~ center (PTM-SC2);

maintaining information (AR1) about the address (PTM-SC2) of the second service ~~centre~~ center and its service area (A1-2) at the first service ~~centre~~ center;

receiving the service request indicating the destination area (A1) at the first service ~~centre~~ center;

checking at the first service ~~centre~~ center (PTM-SC1) whether at least part of the destination area is within the service area of the second service ~~centre~~ center;

and, if yes,

forwarding the service request to the second service ~~centre~~ center (PTM-SC2).

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9. (Currently Amended) The A method according to claim 8,
~~characterized in that,~~ wherein when at least part of the destination area is within the service area of the second service ~~centre~~ center, the method further comprises the steps of:

setting the part of the destination area which is within the service area of the second service ~~centre~~ center as the destination area of the service request received at the first ~~centre~~ center; and

forwarding the service request to the second service ~~centre~~ center.

10. (Currently Amended) The A method according to claim 8,
~~characterized in that~~ wherein

at least part of the service area of the second service ~~centre~~ center is within the service area of the first ~~centre~~ center, the common service area being referred to as a transferable service area, and

the method further comprising the steps of:

comparing the load of the first service ~~centre~~ center with the load of the second service ~~centre~~ center;

determining a threshold value for the difference between the loads; and,

when the load difference between the service ~~centres~~ centers reaches the threshold value, determining the transferable service area to belong within the service area of the service ~~centre~~ center with a smaller load.

B1 11. (Currently Amended) The A method according to claim 8, ~~characterized in that~~ wherein the destination area of the service request received by the first service ~~centre~~ center is indicated as a list of cells.

12. (Currently Amended) An area register (~~AR~~) which forms part of a mobile communication system comprising at least one network, the network comprising a service ~~centre~~ center for point-to-multipoint services for transmitting a point-to-multipoint service to a geographical destination area indicated in a service request, the destination area being indicated as a logical name, ~~characterized in~~ wherein that the area register comprises:

a list (~~71~~) of logical names for at least one service ~~centre~~ center and at least one network element address list (~~72, 73~~) of the system corresponding to each logical name in order to allow a logical name to be mapped to at least one system network element address; and

processing means (~~6~~) for receiving inquiries concerning the logical names and for replying to the inquiries.

13. (Currently Amended) The An area register according to claim 12,
~~characterized in that wherein~~ the processing means (6) are arranged to
identify logical operators and

map the logical name of a destination area formed by two or more logical names
and an intermediate logical operator between successive names to one or more network
element addresses of the system.

B1 14. (Currently Amended) The An area register according to claim 12,
~~characterized in that wherein~~ at least one logical name (~~Nordic countries~~) is
divided into logical names of a lower hierarchical level (~~Finland, Sweden~~) so that the
geographical destination area of the logical name of the higher hierarchical level is
formed of the geographical destination areas of the logical names of the lower
hierarchical level.

15. (Currently Amended) The An area register according to claim 12,
~~characterized in that it comprises~~ comprising updating means (8) for adding
logical names to and for removing them from the list (71) of logical names and for adding
network element addresses to and for removing them from the network element address
list (72, 73).

16. (Currently Amended) A service ~~centre~~ center (~~PTM-SC~~) for transmitting
point-to-multipoint services in a mobile communication system to a geographical
destination area of the service, the service ~~centre~~ center comprising reception means (10)

for receiving a service request, the service request having a destination area that can be indicated as a logical name,

~~characterized in that~~ wherein the service ~~centre~~ center further comprises:
inquiry means (11) for mapping the logical name given in the service request to at least one network element address of the system; and

transmission means (12) for transmitting the service to the destination area via each network element.

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17. (Currently Amended) The A service ~~centre~~ center according to claim 16,
~~characterized in that it comprises~~ comprising:

control means (11) for checking whether a network element is a second service ~~centre~~ center; and

if yes, the transmission means (12) are arranged to forward the service request to the second service ~~centre~~ center.

18. (Currently Amended) The A service ~~centre~~ center according to claim 16,
~~characterized in that it comprises~~ comprising:

load means (13) for monitoring the load of the service ~~centre~~ center itself and that of the second service ~~centre~~ center; and

determining means (11) responsive to the load means for re-determining the service area of the second service ~~centre~~ center.